

REMARKS

Claims 1-11, 13-19, 21 and 22 are pending, with claims 12 and 20 having previously been canceled, without prejudice or disclaimer. By this Amendment, claims 1, 11 and 21 have been amended to clarify the claimed subject matter. Claims 1-11, 13-19, 21 and 22 remain pending upon entry of this Amendment, with claims 1, 11 and 21 being in independent form.

Claims 1 and 21 were rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. Claims 1 and 21 were rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite.

In response, the claims have been amended to address the formal issues referenced in the Office Action.

Withdrawal of the rejections under 35 U.S.C. §112 is respectfully requested.

Claims 1-11, 13-19 and 21 were rejected under 35 U.S.C. § 102(e) as purportedly anticipated by Baba et al. (WO 2004/024003). Claims 22 was rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Baba and further in view of Kohle (US 2004/0096088 A1).

As an initial matter, it is noted that Baba (WO 2004/024003) is NOT a reference under 35 U.S.C. § 102(e), since Baba (WO 2004/024003) was not filed in the U.S. and was NOT published in the English language.

Further, applicant respectfully submits that the present application is allowable over the cited art, for at least the reason that the cited art, including Baba, does NOT disclose or suggest the aspects of the present application of (i) calculating at least one biological function data in the tomogram regarding temporal changes in values of the same pixels or section of an organ with passage of time, and (ii) displaying at least portions of regions in the functional image and in the operated image on an arbitrary gradation color scale corresponding to the evaluated value of the

biological function data, and displaying other regions in the function image and in the operated image in an arbitrary color which is NOT included in the gradation color scale, or transparently, and displaying the portions of the regions in the functional image by an overlapped display.

Baba, as understood by applicant, proposes and approach for performing image diagnosis by quantitatively measuring motion of tissue, wherein a one-frame image of a moving picture obtained by imaging a tomogram of a sample is displayed (S2), a mark is superimposed as a reference on a specified position of the biological tissue to be traced in the displayed one-frame image (S3), a cut-out image of the size including the reference at the specified position is set as a one-frame image (S4), other frame images of the moving picture are searched to extract a local image of the same size as the cut-out image having the highest similarity with the cut-out image (S5, S6), the coordinates of the moving destination of the specified position are calculated according to the coordinate difference between the local image having the highest similarity and the cut-out image (S7), and various information concerning movement of the reference (i.e. movement distance, movement speed, movement direction) are determined (S8) and displayed (S9).

More specifically, in such approach of Baba, the function data is created by extracting an outline of a dynamic (or moving) atrium wall or ventricle wall of a heart from each frame of moving images, and then superposing the outline of the moving wall on a displayed image. That is, the extracting features for producing the function data are *spatial changes/displacements* of an organ in the images. Colors are used to indicate directions of movements of the organ. However, the approach of Baba does not use two different types of gradation color scales, one for at least portions of the regions in a functional image and in a composite image, the other for other regions in the images.

On the other hand, the above-mentioned aspects of the present application, in an example of cerebral perfusion function data, involves analyzing changes in values of the same pixels or section of an organ caused by flow of blood and/or a contrast medium over time (that is, *temporal* changes), and then a function image is created by mapping the function data as an image, and the created function image is synthesized with a tomogram. So the extracting features for producing the function data in such aspects of the present application is based NOT on the *spatial changes/displacements* of the organ.

Further, in the present application, colors are used to indicate quantities of the function data according to gradation color scales, and two different types of gradation color scales are used, one for at least portions of the regions in a functional image and in a composite image, and the other for other regions in the images.

Baba and the other cited references (including Kohle) do NOT disclose or suggest, and even when considered along with common sense and common knowledge to one skilled in the art, do *NOT* render unpatentable, the above-mentioned aspects of the present application.

Accordingly, applicant respectfully submits that independent claims 1, 11 and 21, and the claims depending therefrom, are allowable over the cited art.

In view of the remarks hereinabove, applicant submits that the application is now allowable, and earnestly solicits the allowance of the application.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Patent Office is hereby authorized to charge any required fees in connection with this amendment, and to credit any overpayment, to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner

is respectfully requested to call the undersigned attorney.

Respectfully submitted,


Paul Teng, Reg. No. 40,837
Attorney for Applicant
COOPER & DUNHAM LLP
Tel.: (212) 278-0400